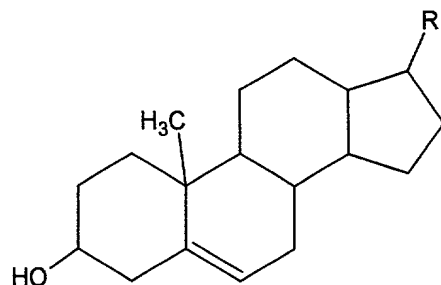


# ABSTRACT

Novel nitric-oxide releasing lipid molecules are provided which comprise a lipid molecule selected from (a) phosphoglycerides, (b) lipids having a sphingosine base as a backbone, (c) monoacylglycerols, (d) diacylglycerols, (e) glycosylacylglycerols, and (f) sterol compounds of the formula:



where R is a branched aliphatic chain of eight or more carbon atoms, wherein the lipid molecule is provided with a nitric-oxide containing group which comprises (a)

10 a  $\text{—S—N=O}$  moiety, (b) a  $\text{—O—N=O}$  moiety, or (c) a  $\text{—N—N=O}$  moiety. Also provided are methods of forming such nitric oxide releasing lipid molecules.

Various pharmaceutical compositions, topical liquids and drug delivery systems comprising the nitric-oxide releasing lipid molecules are also described. Further provided are methods for therapeutically administering nitric oxide to patients, 15 methods of treating or preventing various conditions, methods for promoting wound healing and methods of reducing the cells present in an atherosclerotic lesion, which methods utilize the nitric-oxide releasing lipid molecules.

20